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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/531,899

11/15/2005

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03830052AA

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7590

02/02/2009

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EXAMINER

HE, JIALONG

ART UNIT

PAPER NUMBER

2626

MAIL DATE

DELIVERY MODE

02/02/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/531,899	<b>Applicant(s)</b> MURASHIMA, ATSUSHI	
	<b>Examiner</b> JIALONG HE	<b>Art Unit</b> 2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 December 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 2-4,6-8,10-12 and 14-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-4,6-8,10-12 and 14-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Examiner Change***

1. It should be note the Examiner was changed due to the previous examiner being no longer available.

### ***Response to Amendment***

2. Applicant's amendment filed on 12/05/2008 has been entered. Claims 2, 6, 10 have been amended. Claims 1, 5, 9 and 13 have been canceled. No claim has been added. Claims 2-4, 6-8, 10-12, 14-16 are still pending in this application, with claims 2, 6, 10 being independent.

The applicant amended Abstract and Specification to correct minor informalities, the objection to the specification is withdrawn.

The applicant amended claims 2 and 11 to correct minor informalities, the objection to these claims is withdrawn.

### ***Oath/Declaration***

The applicant files a new Oath/Declaration to correct inventor name. The new Oath/Declaration is accepted.

***Response to Arguments***

3. Applicant's arguments regarding rejection to claims 10-12 and 16 under 35 USC 101 have been fully considered but they are not persuasive for the following reasons.

Claims 10-12 and 16 recites “a computer program product embodied on a computer-readable medium ...”. There is no definition in the specification for the term “computer-readable medium”. The most relevant section in the specification (page 62) states “the program stored in the recording medium, ..., the recording medium may include a communication medium of wired or wireless communication to transmit the program, for example, when the program is transmitted from a server to a computer”.

The applicant states (**Remarks, page 12-13**) that the computer programs are recorded on a hard disk of a server and the applicant is not claiming a “signal” or other “form of energy”. However, the term “computer-readable medium” is not defined in the specification, the Examiner gives the term a broadest interpretation which encompasses communication signals. The rejection to 10-12 and 16 under 35 USC 101 is maintained.

4. Applicant's arguments regarding rejection to claims 2-4, 6-8, 10-12 and 14-16 under 35 USC 103(a) have been considered but are moot in view of the new ground(s) of rejection necessitated by the amendments.

***Claim Rejections - 35 USC § 101***

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

7. Claims 10-12 and 16 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The preamble of independent claim 10 recites: A computer program product embodied on a computer-readable medium and comprising code that, when executed, causes a computer to perform processes... (emphasis added). It is noted that the terms "computer program product" and "computer-readable medium" are not defined in the Specification. Therefore, the examiner has treated "computer program product" as equivalent to the "computer program" of the Specification (e.g. Specification, page 59, line 21), and "computer-readable medium" as equivalent to the "recording medium" of the Specification that stores the computer program (e.g. Specification, page 59, line 21). The Specification states that "the recording medium may include a communication medium of wired or wireless communication to transmit the program, for example, when the program is transmitted from a server to a computer" (Specification, page 62, lines 16-20).

Therefore, the scope of claim 10 includes embodiments of a computer program as a signal, and as such is nonstatutory, as an encoded signal per se is a form of

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energy and thus not a process, machine, manufacture, or composition of matter. (See MPEP § 2106.IV.B) A transmitted signal in itself lacks physical structure and fails to realize the functionality of the functional descriptive material (the computer program) in a computer. (See, e.g., In re Nuijten, Docket no. 2006-1371 (Fed. Cir. Sept. 20, 2007).)

Claims 11, 12, and 16 are dependent on claim 10 and are likewise directed to an encoded signal, and therefore do not fall within any of the statutory classes of § 101.

### ***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 3-4, 11-12, 14 and 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 3, line 6 recites a term "**said data of second linear prediction coefficients**". Because "data of second linear prediction coefficients" has been deleted from claim 2, it is not clear whether "said data" refers to "current data" or "past data". For examination purpose, the Examiner interprets "said data" to read as "said current data".

Claim 11 has the similar problem as explained for claim 3.

Claims 4, 11-12, 14 and 16 recites "**said data**". Due to the amendments to claims they depend on, it is not clear whether "said data" refers to "current data" or "past data". For examination purpose, the Examiner interprets "said data" to read as "said current data".

### ***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 2-4, 6-8, 10-12 and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki (US PGPub. 2002/0077812, herein after referred to as Suzuki) in view of Makinen et al. (US PGPub. 2002/0091523, hereinafter referred to as Makinen).

Regarding claim 2, Suzuki discloses a method of converting code which converts first codes based on a first system to second codes based on a second system  
(**Abstract**), comprising:

obtaining current data of first linear prediction coefficients and first excitation signal from said first codes, if said first codes are available (**[0002-0005], also fig. 33**);

obtaining said second codes from said current data of said first linear prediction coefficients and said first excitation signal (**[0005], linear prediction coefficient and the excitation signal, fig. 33, voice code conversion**).

Suzuki discloses converting voice code from one coding system to another coding system (**[0002]**) and if a speech frame is lost or corrupted during transmission, applying some error correction (error concealment) techniques (**[0055], [0276-0293]**)

Suzuki fails to explicitly disclose but Makine discloses calculating current data of said first linear prediction coefficients by calculating from past data of said first linear prediction coefficients stored obtained in the past, if said first codes are unavailable; calculating current data of said first excitation signal by calculating from past data of said first excitation signal past, if said first codes are unavailable (**Makinen, [0006], LPC parameters and excitation parameters; [0008-0015] substitute lost or corrupted frames from the parameter history containing last good parameters**);

Suzuki and Makinen are analogous art and from a similar field of applicant's endeavor in speech coding. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to substitute the error concealment method of

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Suzuki's code conversion system by using the last known good parameters (LPC coefficients and excitation) as taught by Makinen since each individual element and its function are shown in the prior art, albeit shown in separate references, the difference between the claimed subject matter and the prior art rests not on any individual element or function but in the very combination itself. Thus, the simple substitution of one known element for another producing a predictable result renders the claim obvious.

Regarding claim 3, which depends on claim 2, Suzuki in view of Makinen teaches all limitations of claim 2, Suzuki further discloses:

generating a first speech signal by driving a filter having any of first linear prediction coefficients derived from said current data of first linear prediction coefficients and second linear prediction coefficients derived from said data of second linear prediction coefficients by using a first excitation signal derived from said current data of first excitation signal ([0003-0005], **LPC synthesis filter is driven by excitation signal**); and

obtaining data of second excitation signal from said first speech signal and any of said first linear prediction coefficients and said second linear prediction coefficients ([0325], **the second excitation signal is obtained from first excitation signal which is obtained from first speech signal and first linear prediction coefficients; fig. 33**).

Regarding claim 4, which depends on claim 2, Suzuki in view of Makinen teaches all limitations of claim 2, Suzuki further discloses said data of excitation signal includes any of an adaptive codebook data, a fixed codebook data and a gain data ([0013], **adaptive codebook**)

Regarding claim 14, which depends on claim 3, Suzuki in view of Makinen teaches all limitations of claim 3, Suzuki further discloses said data of excitation signal includes any of an adaptive codebook data, a fixed codebook data and a gain data ([0013], **adaptive codebook**)

Claims 6-8 are apparatus claims and are similar to claims 2-4. Therefore, claims 6-8 are rejected based on the same rationale.

Claims 10-12 are computer readable medium claims and are similar to claims 2-4. Therefore, claims 10-12 are rejected based on the same rationale.

Claims 15 and 16 are similar to claim 14. Therefore, claims 15 and 16 are rejected.

### ***Conclusion***

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JIALONG HE whose telephone number is (571)270-5359. The examiner can normally be reached on Monday-Thursday, 7:00 - 4:30, Alt Friday, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Edouard can be reached on (571) 272-7603. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JH/

/Patrick N. Edouard/  
Supervisory Patent Examiner, Art Unit 2626